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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,162

05/24/2006

Roger Rouphael

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6823

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EXAMINER

DUFF, DOUGLAS J

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

06/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,162

Applicant(s)

ROUPHAEL, ROGER

Examiner

Douglas J. Duff

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/10/06</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 11 and 15 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The subject matter contained within the predetermined functions A, B, C, F, G, H is essential for the Examiner to conduct a search for prior art. The claimed functions do not include sufficient units of measure to complete the claimed exhaust pressure equation in claims 11 and 15.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Regarding claim 13, the phrase "or the like" renders the claim(s) indefinite because the claim includes elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9, 10, 12-14, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolmanovsky et al. (US 6035640). Regarding claims 9 and 13, Kolmanovsky et al. discloses an air supply control method for a turbocharged engine (10) having an intake manifold (26) downstream of the compressor (36) of the turbocharger and an exhaust manifold (28) upstream of the turbine (38) of the turbocharger, in which the mass air flow supplied to the engine and/or the pressure in the intake manifold (P_m) are determined, together with the temperature in the exhaust manifold (T_{exh}), characterized in that the pressure in the exhaust manifold is determined as a function of the pressure in the intake manifold (P_m), the engine speed (N), and the temperatures in the cylinders and in the exhaust manifold (T_a , T_{exh}), the pressure in the intake manifold being determined if necessary on the basis of the mass air flow (m) and the exhaust manifold pressure (P_{exh}) is measured by a sensor (54) and that the pressure in the intake is determined on the basis of exhaust pressure as a function of speed (N), cylinder and exhaust temperatures (T_a , T_{exh} , equation 6, col. 5).
7. Regarding claims 10 and 14, Kolmanovsky et al. discloses the air supply control method of claims 9 and 13 including a correction factor dependent on the ambient surrounding pressure (P_a) provided (col. 5, equation 6).
8. Regarding claims 12 and 17, Kolmanovsky et al. discloses the air supply control method of claims 9 and 10 including a throttle valve, and when the throttle valve (col. 4, lines 1-5) is near the closed position, the ambient external pressure (P_a) is calculated on the basis of exhaust pressure (P_{exh}) as a function of engine speed (N).

9. Regarding claim 16, Kolmanovsky et al. discloses the air supply control method of claim 9 including the temperature in the exhaust manifold (T_{exh}) being determined on the basis of modeling (lookup table, col. 7, lines 35-36).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolmanovsky et al. Kolmanovsky et al. discloses the method of claim 10 including the exhaust pressure being calculated by the formula $P_{ex} = (A(T_c) * MAP - B(N, AMP, T_{ex})) / C(T_{ex})$ where A B and C are predetermined functions, T_c is the cylinder temperature, MAP is intake pressure, N is engine speed, AMP is ambient pressure and T_{ex} is exhaust temperature (equation 6, col. 5) and the throttle valve limitations as cited in the rejection of claim 12 above. While Kolmanovsky et al. does not explicitly disclose an engine speed, N, in equation 6, it appears to the Examiner that Kolmanovsky et al. is calculating essentially the same parameter in substantially the same way. Moreover, with the units of the equation in question (see 112 1st paragraph rejection), it is impossible for the Examiner to determine the true scope of these claims.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kolmanovsky et al. Kolmanovsky et al. discloses the method of claim 14 including the pressure in the intake being calculated by the formula $MAP = (F(N, T_{ex}) * P_{ex} + G(N,$

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$AMP, Tex)) / (H(N, Tc))$ with FG and H being predetermined functions, Tc is the temperature of the cylinders, Pex is the exhaust temperature, N is the engine speed, AMP is the ambient pressure and Tex is the exhaust temperature (equation 6, col. 5). While Kolmanovsky et al. does not explicitly disclose an engine speed, N, in equation 6, it appears to the Examiner that Kolmanovsky et al. is calculating essentially the same parameter in substantially the same way. Moreover, with the units of the equation in question (see 112 1st paragraph rejection), it is impossible for the Examiner to determine the true scope of these claims.

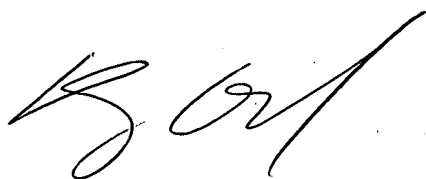
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Duff whose telephone number is (571) 272-3459. The examiner can normally be reached on M-F 7 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Douglas J. Duff

 6/25/07


THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700